

## STATEMENT OF THE CLAIMS

1. (currently amended) A system for transferring synchronous and asynchronous signals between broadband access devices, said system comprising:

- a) at least two bus users;
- b) a data bus coupled to said at least two bus users;
- c) a clock bus coupled to said at least two bus users; and
- d) at least one control line coupled to said at least two bus users, wherein

data is transferred between said at least two bus users over said data bus according to a repeating bus frame having a plurality of slots, at least some of said plurality of slots being associated with asynchronous data streams and said at least one control line being asserted ~~whenever~~ when and only when valid data from one of said asynchronous data streams appears on said data bus in a slot of said repeating bus frame.

2. (original) A system according to claim 1, wherein:

said repeating bus frame has three hundred thirty-six slots and said clock bus provides a clock signal of approximately 25 MHz.

3. (original) A system according to claim 1, wherein:

said repeating bus frame has one thousand eight slots and said clock bus provides a clock signal of approximately 75 MHz.

4. (original) A system according to claim 1, wherein:

said at least one control line includes a start of frame indicator which is asserted at the first slot of said repeating bus frame.

5. (original) A system according to claim 1, wherein:

at least one of said asynchronous data streams includes a repeating data frame,  
and

said at least one control line includes a data frame indicator which is asserted when a slot in said repeating bus frame includes a start of frame indicator for said repeating data frame.

6. (original) A system according to claim 5, wherein:

said data bus transfers data eight bits at a time,  
said start of frame indicator for said repeating data frame is one bit, and  
said at least one control line includes a position indicator for indicating which of said eight bits is said one bit when said data frame indicator is asserted.

7. (original) A system according to claim 1, wherein:

one of said at least two bus users is coupled to a SONET network and another of said at least two bus users is coupled to a non-SONET network.

8. (original) A system according to claim 7, wherein:

said bus user coupled to the SONET network is a bus master.

9. (original) A system according to claim 7, wherein:

said bus user coupled to the non-SONET network is a bus master.

10. (currently amended) A method for transferring synchronous and asynchronous signals between broadband access devices, said method comprising:

- a) generating a repeating bus frame having a plurality of slots;
- b) associating at least some of said slots with asynchronous data streams;
- c) transferring data between the broadband access devices on a data bus according to the repeating bus frame; and
- d) asserting a first control line ~~whenever~~ when and only when valid data from one of the asynchronous data streams appears on the data bus in a slot of the repeating bus frame.

11. (original) A method according to claim 10, wherein:

the repeating bus frame has three hundred thirty-six slots and repeats at a rate of approximately 25 MHz.

12. (original) A method according to claim 10, wherein:

the repeating bus frame has one thousand eight slots and repeats at a rate of approximately 75 MHz.

13. (original) A method according to claim 10, further comprising:

e) asserting a second control line at the first slot of the repeating bus frame.

14. (original) A method according to claim 10, further comprising:

e) asserting a second control line when a slot of the repeating bus frame includes a framing signal of an asynchronous data stream.

15. (original) A method according to claim 14, wherein:

each slot of the repeating bus frame has eight bits,  
the framing signal of an asynchronous data stream is one bit, and  
said step of asserting a second control line includes asserting a position indicator for indicating which of eight bits in the slot is the one bit framing signal.